

Brockhill – a photovoltaic first

Woking Borough Council was one of the first local authorities to provide private wire residential Combined Heat and Power (CHP) and combined CHP and photovoltaic systems.

Brockhill is an 'extra-care' sheltered housing scheme operated by Woking Borough Council for elderly residents. It boasts a large scale domestic solar photovoltaic installation that converts daylight into electricity and was installed by BP Solar Ltd.



The innovative and unique combination of technologies enables Brockhill to receive sustainable energy from the CHP plant and renewable energy from the photovoltaic roof. This approach makes a positive contribution to the Council's Climate Change Strategy target of purchasing 20% and 100% of the Council's electrical energy requirements from renewable energy resources and sustainable energy resources respectively by 2010-11.

As the development provides a local community energy system and because of the way it functions, Woking has managed to avoid charges and costs which are imposed on power generators and suppliers accessing the national grid.



The charges to residents are set in accordance with the Council's Climate Change Strategy, which provides heat and electricity within the Government's affordable warmth targets of 10% of income for heating only. This has positive effects on Woking's strategy to tackle fuel poverty (addressing the affordability of both heating and electricity) and energy conservation.

As Woking benefits from a favourable combination of maximum daylight hours and a temperate climate, it is an ideal location for photovoltaic technology. The solar photovoltaic roof saves around 25 tonnes of CO₂ emissions a year. The combined system of photovoltaics and CHP will save around 4,734 tonnes of CO₂ emissions in its lifetime and provide a 100% renewable and sustainable energy source.



Brockhill uses 81.5 kWp of photovoltaics and, together with a 30 kW CHP station, has a total generation capacity of 111.5 kW.



*Woking Borough Council
acknowledges the valuable
contribution of Seaboard plc.*